



[4910-13-P]

## **DEPARTMENT OF TRANSPORTATION**

### **Federal Aviation Administration**

#### **14 CFR Part 39**

**[Docket No. FAA-2013-0366; Directorate Identifier 2011-NM-024-AD]**

**RIN 2120-AA64**

**Airworthiness Directives; The Boeing Company Airplanes**

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Notice of proposed rulemaking (NPRM).

**SUMMARY:** We propose to supersede an existing airworthiness directive (AD) that applies to certain The Boeing Company Model 747-100, 747-100B, 747-100B SUD, 747-200B, 747-200C, 747-300, 747-400, 747-400D, and 747SR series airplanes. The existing AD requires, for certain airplanes, inspection to determine the material of a main entry door (MED) reveal; repetitive inspections of certain reveals for cracking; a detailed inspection of certain reveals for a sharp edge and cracking; and corrective action if necessary. That AD also allows a certain replacement as an optional action for certain inspections of certain airplanes. Since we issued that AD, an operator reported a crack found in a 6061 machined aluminum one-piece corner reveal. This proposed AD would add, for certain airplanes, an inspection to determine material type of MED reveals, repetitive inspections for cracking of 6061 machined aluminum one-piece corner reveals, and replacement with 6061 machined aluminum two-piece corner reveals if necessary. This proposed AD would also allow replacement with two-piece corner reveals as an option for certain repetitive inspections. This proposed AD would also revise the applicability by removing a certain airplane. We are proposing this AD to detect and correct fatigue cracking of the lower forward corner reveal of the number 3 MEDs, which could lead to the door escape slide departing the airplane when the door is opened and the

slide is deployed, and consequent injuries to passengers and crew using the door escape slide during an emergency evacuation.

**DATES:** We must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** You may send comments by any of the following methods:

- Federal eRulemaking Portal: Go to <http://www.regulations.gov>. Follow the instructions for submitting comments.
- Fax: 202-493-2251.
- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.
- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this proposed AD, contact Boeing Commercial Airplanes, Attention: Data & Services Management, P. O. Box 3707, MC 2H-65, Seattle, Washington 98124-2207; telephone 206-544-5000, extension 1; fax 206-766-5680; Internet <https://www.myboeingfleet.com>. You may review copies of the referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, Washington. For information on the availability of this material at the FAA, call 425-227-1221.

#### **Examining the AD Docket**

You may examine the AD docket on the Internet at <http://www.regulations.gov>; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this proposed AD, the regulatory evaluation, any comments received, and other information. The street address

for the Docket Office (phone: 800-647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

**FOR FURTHER INFORMATION CONTACT:** Bill Ashforth, Aerospace Engineer, Airframe Branch, ANM-120S, FAA, Seattle Aircraft Certification Office (ACO), 1601 Lind Avenue SW., Renton, WA 98057-3356; phone: (425) 917-6432; fax: (425) 917-6590; email: [bill.ashforth@faa.gov](mailto:bill.ashforth@faa.gov).

#### **SUPPLEMENTARY INFORMATION:**

##### **Comments Invited**

We invite you to send any written relevant data, views, or arguments about this proposed AD. Send your comments to an address listed under the ADDRESSES section. Include “Docket No. FAA-2013-0366; Directorate Identifier 2011-NM-024-AD” at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this proposed AD. We will consider all comments received by the closing date and may amend this proposed AD because of those comments.

We will post all comments we receive, without change, to <http://www.regulations.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this proposed AD.

##### **Discussion**

On August 20, 2008, we issued AD 2008-18-07, Amendment 39-15664 (73 FR 56960, October 1, 2008), for certain The Boeing Company Model 747-100, 747-100B, 747-100B SUD, 747-200B, 747-200C, 747-300, 747-400, 747-400D, and 747SR series airplanes. The existing AD requires, for certain airplanes, an inspection to determine the material of an MED reveal; repetitive inspections of certain reveals for cracking; a detailed inspection of certain reveals for a sharp edge and cracking; and

corrective action if necessary. That AD also allows a certain replacement as an optional action for certain inspections of certain airplanes. The existing AD resulted from reports of cracking and/or a sharp edge in the lower forward corner reveal of the number 3 MEDs. We issued that AD to detect and correct fatigue cracking of the lower forward corner reveal of the number 3 MEDs, which could lead to the door escape slide departing the airplane when the door is opened and the slide is deployed, and possible consequent injuries to passengers and crew using the door escape slide during an emergency evacuation.

#### **Actions Since Existing AD (73 FR 56960, October 1, 2008) Was Issued**

Since we issued AD 2008-18-07, Amendment 39-15664 (73 FR 56960, October 1, 2008), an operator reported a crack found in a 6061 machined aluminum one-piece corner reveal. Certain airplanes were equipped with either 356 cast aluminum or 6061 machined aluminum one-piece corner reveals at delivery. The existing AD allowed 356 cast aluminum reveals to be replaced with one-piece machined aluminum corner reveals. We have determined that inspections are necessary on airplanes having these one-piece reveals.

#### **Relevant Service Information**

AD 2008-18-07, Amendment 39-15664 (73 FR 56960, October 1, 2008), referred to Boeing Special Attention Service Bulletin 747-53-2460, Revision 1, dated February 13, 2007, as the appropriate source of service information for the required actions. Boeing has since revised this service information.

We reviewed Boeing Special Attention Service Bulletin 747-53-2460, Revision 2, dated December 22, 2010. No new airplanes were added to the effectivity of Boeing Special Attention Service Bulletin 747-53-2460, Revision 2, dated December 22, 2010, but airplane groups were changed based on the material composition of the corner reveals. This service information describes procedures for a material type inspection of

one-piece or two-piece corner reveals; inspection for sharp edges and cracking; and replacement of reworked 356 cast aluminum corner reveals and 6061 machined aluminum one-piece corner reveals with 6061 machined aluminum two-piece corner reveals, which would eliminate the need for repetitive inspections.

Boeing Special Attention Service Bulletin 747-53-2460, Revision 2, dated December 22, 2010, also specifies a revised effectivity that clarifies the cargo configuration exceptions by excluding airplanes modified to the Boeing converted freighter and large cargo freighter configurations and removing an exception for Groups 2 and 3 of airplanes modified to the special freighter configuration. This service information also removes line number (L/N) 1271, a Model 747-400F series airplane, from the effectivity because it is a freighter airplane.

#### **FAA's Determination**

We are proposing this AD because we evaluated all the relevant information and determined the unsafe condition described previously is likely to exist or develop in other products of the same type design.

#### **Proposed AD Requirements**

This proposed AD would retain all of the requirements of AD 2008-18-07, Amendment 39-15664 (73 FR 56960, October 1, 2008). The proposed AD would require the actions specified in the service information described previously. The proposed AD would add, for certain airplanes, an inspection to determine material type of MED reveals, repetitive inspections for cracking of 6061 machined aluminum one-piece corner reveals, and replacement with 6061 machined aluminum two-piece corner reveals if necessary. This proposed AD would also allow replacement with two-piece corner reveals as an option for certain repetitive inspections. Also, the proposed AD would remove airplane L/N 1271, a Model 747-400F series airplane, from the AD applicability.

### **Changes to Existing AD (73 FR 56960, October 1, 2008)**

This proposed AD would retain all of the requirements of AD 2008-18-07, Amendment 39-15664 (73 FR 56960, October 1, 2008). However, we have removed the “Service Bulletin Reference” paragraph from this proposed AD. That paragraph was identified as paragraph (f) in AD 2008-18-07. That paragraph provided operators with a one-time citation of the referenced service bulletin in AD 2008-18-07. Instead, we have provided the full service bulletin citation throughout this proposed AD.

We have revised the heading and wording for paragraph (l) of this proposed AD, to clarify that the only exception to the procedures in Boeing Special Attention Service Bulletin 747-53-2460, Revision 1, dated February 13, 2007; and Boeing Special Attention Service Bulletin 747-53-2460, Revision 2, dated December 22, 2010; is that, as of the effective date of this proposed AD, an operator’s equivalent procedure may no longer be used without requesting approval of an alternative method of compliance (AMOC).

We have also re-designated Notes 1 and 2 of AD 2008-18-07, Amendment 39-15664 (73 FR 56960, October 1, 2008), as paragraphs (p) and (q) of this proposed AD. This change does not affect the intent of those paragraphs.

### **Costs of Compliance**

We estimate that this proposed AD affects 166 airplanes of U.S. registry. We estimate the following costs to comply with this proposed AD:

### Estimated costs

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Material type inspection and inspection for cracks (retained actions from AD 2008-18-07, Amendment 39-15664 (73 FR 56960, October 1, 2008)) (119 airplanes)	4 work-hours X \$85 per hour = \$340 per inspection cycle	\$0	\$340 per inspection cycle	\$40,460 per inspection cycle
New Material type inspection and inspection for cracks [new proposed action] (166 airplanes)	14 work-hours X \$85 per hour = \$1,190 per inspection cycle	\$0	\$1,190 per inspection cycle	\$197,540 per inspection cycle

We estimate the following costs to do any necessary on-condition actions that would be required based on the results of the proposed inspections. We have no way of determining the number of aircraft that might need these actions:

### On-condition costs

Action	Labor cost	Parts cost	Cost per product
Corner reveal removal and replacement [new proposed action]	17 work-hours X \$85 per hour = \$1,445 per inspection cycle	\$9,525	\$ 10,970 per inspection cycle

### Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, Section 106, describes the authority of the FAA Administrator. Subtitle VII, Aviation Programs, describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701, "General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator

finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

### **Regulatory Findings**

We have determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that the proposed regulation:

- (1) Is not a “significant regulatory action” under Executive Order 12866,
- (2) Is not a “significant rule” under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979),
- (3) Will not affect intrastate aviation in Alaska, and
- (4) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

### **List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

### **The Proposed Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

### **PART 39 - AIRWORTHINESS DIRECTIVES**

- 1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.



### **§ 39.13 [Amended]**

2. The FAA amends § 39.13 by removing airworthiness directive (AD) 2008-18-07, Amendment 39-15664 (73 FR 56960, October 1, 2008), and adding the following new AD:

**The Boeing Company:** Docket No. FAA-2013-0366; Directorate Identifier 2011-NM-024-AD.

#### **(a) Comments Due Date**

The FAA must receive comments on this AD action by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

#### **(b) Affected ADs**

This AD supersedes AD 2008-18-07, Amendment 39-15664 (73 FR 56960, October 1, 2008).

#### **(c) Applicability**

This AD applies to The Boeing Company Model 747-100, 747-100B, 747-100B SUD, 747-200B, 747-200C, 747-300, 747-400, 747-400D, and 747SR series airplanes, certificated in any category, as identified in Boeing Special Attention Service Bulletin 747-53-2460, Revision 2, dated December 22, 2010, except airplanes that have been converted to an all-cargo configuration. The requirements of this AD also become applicable at the time when a converted airplane operating in an all-cargo configuration is converted back to a passenger or passenger/cargo configuration.

#### **(d) Subject**

Air Transport Association (ATA) of America Code 53: Fuselage.

**(e) Unsafe Condition**

This AD was prompted by a report of a crack found in a 6061 machined aluminum one-piece corner reveal. We are proposing this AD to detect and correct fatigue cracking of the lower forward corner reveal of the number 3 main entry doors (MEDs), which could lead to the door escape slide departing the airplane when the door is opened and the slide is deployed, and consequent injuries to passengers and crew using the door escape slide during an emergency evacuation.

**(f) Compliance**

Comply with this AD within the compliance times specified, unless already done.

**(g) Retained Actions for Group 3 Airplanes**

This paragraph restates the requirements of paragraph (g) of AD 2008-18-07, Amendment 39-15664 (73 FR 56960, October 1, 2008), with revised service information. For airplanes identified as Group 3 airplanes in Boeing Special Attention Service Bulletin 747-53-2460, Revision 1, dated February 13, 2007: Before the accumulation of 10,000 total flight cycles, or within 1,000 flight cycles after November 5, 2008 (the effective date of AD 2008-18-07), whichever occurs later, do a detailed inspection for cracking of the lower forward corner reveals, in accordance with Part 8 of the Accomplishment Instructions of Boeing Special Attention Service Bulletin 747-53-2460, Revision 1, dated February 13, 2007; or Part 2 of the Accomplishment Instructions of Boeing Special Attention Service Bulletin 747-53-2460, Revision 2, dated December 22, 2010. As of the effective date of this AD, only Boeing Special Attention Service Bulletin 747-53-2460, Revision 2, dated December 22, 2010, may be used to accomplish the actions required by this paragraph.

(1) If no cracking is found, repeat the inspection thereafter at intervals not to exceed 6,000 flight cycles until a new or reworked two-piece reveal is installed in accordance with Part 2 of the Accomplishment Instructions of Boeing Special Attention

Service Bulletin 747-53-2460, Revision 1, dated February 13, 2007; or Part 3 of the Accomplishment Instructions of Boeing Special Attention Service Bulletin 747-53-2460, Revision 2, dated December 22, 2010. As of the effective date of this AD, only Boeing Special Attention Service Bulletin 747-53-2460, Revision 2, dated December 22, 2010, may be used to accomplish the actions required by this paragraph. No further action is required by this paragraph for that location only after the replacement.

(2) If cracking is found, do the replacement specified in paragraph (g)(2)(i) or (g)(2)(ii) of this AD.

(i) Before further flight, replace the reveal with a new or reworked two-piece reveal, in accordance with Part 2 of the Accomplishment Instructions of Boeing Special Attention Service Bulletin 747-53-2460, Revision 1, dated February 13, 2007; or Part 3 of the Accomplishment Instructions of Boeing Special Attention Service Bulletin 747-53-2460, Revision 2, dated December 22, 2010. No further action is required by this paragraph for that location only after the replacement. As of the effective date of this AD, only Boeing Special Attention Service Bulletin 747-53-2460, Revision 2, dated December 22, 2010, may be used to accomplish the actions required by this paragraph.

(ii) Before further flight, replace the reveal with a new or reworked one-piece machined aluminum reveal without a sharp edge, in accordance with Part 3 of the Accomplishment Instructions of Boeing Special Attention Service Bulletin 747-53-2460, Revision 1, dated February 13, 2007; or Part 4 of the Accomplishment Instructions of Boeing Special Attention Service Bulletin 747-53-2460, Revision 2, dated December 22, 2010. Before the accumulation of 10,000 flight cycles since new on the replacement reveal, do the inspection for cracking specified in Part 8 of the Accomplishment Instructions of Boeing Special Attention Service Bulletin 747-53-2460, Revision 1, dated February 13, 2007; or Part 2 of the Accomplishment Instructions of

Boeing Special Attention Service Bulletin 747-53-2460, Revision 2, dated December 22, 2010. Repeat the inspection thereafter at intervals not to exceed 6,000 flight cycles until a new or reworked two-piece reveal is installed in accordance with Part 2 of the Accomplishment Instructions of Boeing Special Attention Service Bulletin 747-53-2460, Revision 1, dated February 13, 2007; or Part 3 of the Accomplishment Instructions of Boeing Special Attention Service Bulletin 747-53-2460, Revision 2, dated December 22, 2010. If any cracking is found during any inspection required by this paragraph, before further flight, do the actions specified in paragraph (g)(2) of this AD. No further action is required by this paragraph for that location only after the replacement with a two-piece reveal. As of the effective date of this AD, only Boeing Special Attention Service Bulletin 747-53-2460, Revision 2, dated December 22, 2010, may be used to accomplish the actions required by this paragraph.

**(h) Retained Actions for Group 2 Airplanes**

This paragraph restates the requirements of paragraph (h) of AD 2008-18-07, Amendment 39-15664 (73 FR 56960, October 1, 2008), with revised service information. For airplanes identified as Group 2 airplanes in Boeing Special Attention Service Bulletin 747-53-2460, Revision 1, dated February 13, 2007; or Boeing Special Attention Service Bulletin 747-53-2460, Revision 2, dated December 22, 2010: Before the accumulation of 1,500 total flight cycles, or within 1,000 flight cycles after November 5, 2008 (the effective date of AD 2008-18-07), whichever occurs later, do the inspection specified in paragraph (j) of this AD.

**(i) Retained Actions for Group 1, Configuration 2 Airplanes**

This paragraph restates the requirements of paragraph (i) of AD 2008-18-07, Amendment 39-15664 (73 FR 56960, October 1, 2008), with revised service information. For airplanes identified as Group 1, Configuration 2 airplanes in Boeing Special Attention Service Bulletin 747-53-2460, Revision 1, dated February 13, 2007;

or Boeing Special Attention Service Bulletin 747-53-2460, Revision 2, dated December 22, 2010: Within 1,500 flight cycles after the lower forward corner reveal was last replaced, or 1,000 flight cycles after November 5, 2008 (the effective date of AD 2008-18-07), whichever occurs later, do the inspection specified in paragraph (j) of this AD.

**(j) Retained Inspection for Cracking and Sharp Edge**

This paragraph restates the requirements of paragraph (j) of AD 2008-18-07, Amendment 39-15664 (73 FR 56960, October 1, 2008), with revised service information. At the applicable times specified in paragraphs (h) and (i) of this AD: Do a detailed inspection of the lower forward corner reveal for cracking and a sharp edge, in accordance with Part 5 of the Accomplishment Instructions of Boeing Special Attention Service Bulletin 747-53-2460, Revision 1, dated February 13, 2007; or Part 1 and Part 2 of the Accomplishment Instructions of Boeing Special Attention Service Bulletin 747-53-2460, Revision 2, dated December 22, 2010. As of the effective date of this AD, only Boeing Special Attention Service Bulletin 747-53-2460, Revision 2, dated December 22, 2010, may be used to accomplish the actions required by this paragraph.

(1) If no cracking and no sharp edge are found, before the accumulation of 10,000 flight cycles on the lower forward corner reveal since new, or within 6,000 flight cycles after doing the inspection required by paragraph (j) of this AD, whichever occurs later, do a detailed inspection for cracking, in accordance with Part 8 of the Accomplishment Instructions of Boeing Special Attention Service Bulletin 747-53-2460, Revision 1, dated February 13, 2007; or Part 2 of the Accomplishment Instructions of Boeing Special Attention Service Bulletin 747-53-2460, Revision 2, dated December 22, 2010. Inspect thereafter at intervals not to exceed 6,000 flight cycles, until a new or reworked two-piece reveal is installed in accordance with Part 2 of the Accomplishment Instructions of Boeing Special Attention Service Bulletin 747-53-2460,

Revision 1, dated February 13, 2007; or Part 3 of the Accomplishment Instructions of Boeing Special Attention Service Bulletin 747-53-2460, Revision 2, dated December 22, 2010. If any cracking is found during any inspection required by this paragraph, before further flight, do the actions specified in paragraph (j)(3) of this AD. No further action is required by this paragraph for that location only after the replacement with a two-piece reveal. As of the effective date of this AD, only Boeing Special Attention Service Bulletin 747-53-2460, Revision 2, dated December 22, 2010, may be used to accomplish the actions required by this paragraph.

(2) If no cracking is found, but a sharp edge is found, do the actions specified in paragraph (j)(2)(i) or (j)(2)(ii) of this AD.

(i) Before further flight, replace the lower forward corner reveal with a new or reworked two-piece reveal, in accordance with Part 2 of the Accomplishment Instructions of Boeing Special Attention Service Bulletin 747-53-2460, Revision 1, dated February 13, 2007; or Part 3 of the Accomplishment Instructions of Boeing Special Attention Service Bulletin 747-53-2460, Revision 2, dated December 22, 2010. No further action is required by this paragraph for that location only after the replacement. As of the effective date of this AD, only Boeing Special Attention Service Bulletin 747-53-2460, Revision 2, dated December 22, 2010, may be used to accomplish the actions required by this paragraph.

(ii) Before further flight, replace the reveal with a new or reworked one-piece machined aluminum reveal without a sharp edge, in accordance with Part 3 of the Accomplishment Instructions of Boeing Special Attention Service Bulletin 747-53-2460, Revision 1, dated February 13, 2007; or Part 4 of the Accomplishment Instructions of Boeing Special Attention Service Bulletin 747-53-2460, Revision 2, dated December 22, 2010. Before the accumulation of 10,000 flight cycles on the replacement reveal since new, do the inspection for cracking, in accordance with

Part 8 of the Accomplishment Instructions of Boeing Special Attention Service Bulletin 747-53-2460, Revision 1, dated February 13, 2007; or Part 2 of the Accomplishment Instructions of Boeing Special Attention Service Bulletin 747-53-2460, Revision 2, dated December 22, 2010. Inspect thereafter at intervals not to exceed 6,000 flight cycles, until a new or reworked two-piece reveal is installed in accordance with Part 2 of the Accomplishment Instructions of Boeing Special Attention Service Bulletin 747-53-2460, Revision 1, dated February 13, 2007; or Part 3 of the Accomplishment Instructions of Boeing Special Attention Service Bulletin 747-53-2460, Revision 2, dated December 22, 2010. If any cracking is found during any inspection required by this paragraph, before further flight, do the actions specified in paragraph (j)(3) of this AD. No further action is required by this paragraph for that location only after the replacement with a two-piece reveal. As of the effective date of this AD, only Boeing Special Attention Service Bulletin 747-53-2460, Revision 2, dated December 22, 2010, may be used to accomplish the actions required by this paragraph.

(3) If cracking is found, do the actions specified in paragraph (j)(3)(i) or (j)(3)(ii) of this AD.

(i) Before further flight, replace the reveal with a new or reworked two-piece reveal, in accordance with Part 2 of the Accomplishment Instructions of Boeing Special Attention Service Bulletin 747-53-2460, Revision 1, dated February 13, 2007; or Part 3 of the Accomplishment Instructions of Boeing Special Attention Service Bulletin 747-53-2460, Revision 2, dated December 22, 2010. No further action is required by this paragraph for that location only after the replacement. As of the effective date of this AD, only Boeing Special Attention Service Bulletin 747-53-2460, Revision 2, dated December 22, 2010, may be used to accomplish the actions required by this paragraph.

(ii) Before further flight, replace the lower forward corner reveal with a new or reworked one-piece machined aluminum reveal without a sharp edge, in accordance with Part 3 of the Accomplishment Instructions of Boeing Special Attention Service Bulletin 747-53-2460, Revision 1, dated February 13, 2007; or Part 4 of the Accomplishment Instructions of Boeing Special Attention Service Bulletin 747-53-2460, Revision 2, dated December 22, 2010. Before the accumulation of 10,000 flight cycles since new on the replacement reveal, do the inspection for cracking, in accordance with Part 8 of the Accomplishment Instructions of Boeing Special Attention Service Bulletin 747-53-2460, Revision 1, dated February 13, 2007; or Part 2 of the Accomplishment Instructions of Boeing Special Attention Service Bulletin 747-53-2460, Revision 2, dated December 22, 2010. Inspect thereafter at intervals not to exceed 6,000 flight cycles, until a new or reworked two-piece reveal is installed in accordance with Part 2 of the Accomplishment Instructions of Boeing Special Attention Service Bulletin 747-53-2460, Revision 1, dated February 13, 2007; or Part 3 of the Accomplishment Instructions of Boeing Special Attention Service Bulletin 747-53-2460, Revision 2, dated December 22, 2010. If any cracking is found during any inspection required by this paragraph, before further flight, do the actions required by paragraph (j)(3) of this AD. No further action is required by this paragraph for that location only after the replacement with a two-piece reveal. As of the effective date of this AD, only Boeing Special Attention Service Bulletin 747-53-2460, Revision 2, dated December 22, 2010, may be used to accomplish the actions required by this paragraph.

**(k) Retained Actions for Group 1, Configuration 1 Airplanes**

This paragraph restates the requirements of paragraph (k) of AD 2008-18-07, Amendment 39-15664 (73 FR 56960, October 1, 2008), with revised service information. For airplanes identified as Group 1, Configuration 1 airplanes in Boeing Special Attention Service Bulletin 747-53-2460, Revision 1, dated February 13, 2007: Before the



accumulation of 1,500 total flight cycles, or within 1,000 flight cycles after November 5, 2008 (the effective date of AD 2008-18-07), whichever occurs later, do a material type inspection to determine if the lower forward corner reveals are castings, in accordance with Part 1 of the Accomplishment Instructions of Boeing Special Attention Service Bulletin 747-53-2460, Revision 1, dated February 13, 2007; or Part 6 of the Accomplishment Instructions of Boeing Special Attention Service Bulletin 747-53-2460, Revision 2, dated December 22, 2010. As an alternative to the material type inspection, replacing a reveal with a new or reworked two-piece lower forward corner reveal, in accordance with Part 2 of the Accomplishment Instructions of Boeing Special Attention Service Bulletin 747-53-2460, Revision 1, dated February 13, 2007; or Part 3 of the Accomplishment Instructions of Boeing Special Attention Service Bulletin 747-53-2460, Revision 2, dated December 22, 2010; is terminating action for the requirements of this paragraph for that location only. As of the effective date of this AD, only Boeing Special Attention Service Bulletin 747-53-2460, Revision 2, dated December 22, 2010, may be used to accomplish the actions required by this paragraph.

(1) If the forward corner reveal is not a casting: Before further flight, do the actions specified in paragraph (j) of this AD except for the inspection for a sharp edge.

(2) If the forward corner reveal is a casting: Before the accumulation of 7,000 total flight cycles, within 2,000 flight cycles after November 5, 2008 (the effective date of AD 2008-18-07), or within 3,000 flight cycles since the forward corner reveal was inspected as specified in Boeing Service Bulletin 747-53A2378, Revision 3, dated August 11, 2005; or Boeing Service Bulletin 747-53A2378, Revision 4, dated June 10, 2010; whichever occurs latest; do a detailed inspection for cracking of the lower forward corner reveal, in accordance with Part 1 of the Accomplishment Instructions of Boeing Special Attention Service Bulletin 747-53-2460, Revision 1, dated February 13, 2007; or Part 2 of the Accomplishment Instructions of Boeing Special

Attention Service Bulletin 747-53-2460, Revision 2, dated December 22, 2010. As of the effective date of this AD, only Boeing Special Attention Service Bulletin 747-53-2460, Revision 2, dated December 22, 2010, may be used to accomplish the actions required by this paragraph.

(i) If no cracking is found: Repeat the inspection specified in paragraph (k)(2) of this AD thereafter at intervals not to exceed 3,000 flight cycles until a new or reworked two-piece lower forward corner reveal is installed in accordance with Part 2 of the Accomplishment Instructions of Boeing Special Attention Service Bulletin 747-53-2460, Revision 1, dated February 13, 2007; or Part 3 of the Accomplishment Instructions of Boeing Special Attention Service Bulletin 747-53-2460, Revision 2, dated December 22, 2010. No further action is required by this paragraph for that location only after the replacement.

(ii) If cracking is found: Do the actions specified in paragraph (k)(2)(ii)(A), (k)(2)(ii)(B), or (k)(2)(ii)(C) of this AD.

(A) Before further flight, weld repair the reveal, in accordance with Part 4 of the Accomplishment Instructions of Boeing Special Attention Service Bulletin 747-53-2460, Revision 1, dated February 13, 2007; or Part 4 of the Accomplishment Instructions of Boeing Special Attention Service Bulletin 747-53-2460, Revision 2, dated December 22, 2010. Repeat the inspection specified in paragraph (k)(2) of this AD thereafter at intervals not to exceed 3,000 flight cycles until a new or reworked two-piece reveal is installed in accordance with Part 2 of the Accomplishment Instructions of Boeing Special Attention Service Bulletin 747-53-2460, Revision 1, dated February 13, 2007; or Part 3 of the Accomplishment Instructions of Boeing Special Attention Service Bulletin 747-53-2460, Revision 2, dated December 22, 2010. No further action is required by this paragraph for that location only after the replacement. As of the effective date of this AD, only Boeing Special Attention Service Bulletin

747-53-2460, Revision 2, dated December 22, 2010, may be used to accomplish the actions required by this paragraph.

(B) Before further flight, replace the reveal with a new or reworked two-piece reveal, in accordance with Part 2 of the Accomplishment Instructions of Boeing Special Attention Service Bulletin 747-53-2460, Revision 1, dated February 13, 2007; or Part 3 of the Accomplishment Instructions of Boeing Special Attention Service Bulletin 747-53-2460, Revision 2, dated December 22, 2010. No further action is required by this paragraph for that location only after the replacement. As of the effective date of this AD, only Boeing Special Attention Service Bulletin 747-53-2460, Revision 2, dated December 22, 2010, may be used to accomplish the actions required by this paragraph.

(C) Before further flight, replace the reveal with a new or reworked one-piece machined aluminum reveal without a sharp edge, in accordance with Part 3 of the Accomplishment Instructions of Boeing Special Attention Service Bulletin 747-53-2460, Revision 1, dated February 13, 2007; or Part 4 of the Accomplishment Instructions of Boeing Special Attention Service Bulletin 747-53-2460, Revision 2, dated December 22, 2010. Before the accumulation of 10,000 flight cycles since new on the replacement reveal, do the inspection for cracking, in accordance with Part 8 of the Accomplishment Instructions of Boeing Special Attention Service Bulletin 747-53-2460, Revision 1, dated February 13, 2007; or Part 2 of the Accomplishment Instructions of Boeing Special Attention Service Bulletin 747-53-2460, Revision 2, dated December 22, 2010. Inspect thereafter at intervals not to exceed 6,000 flight cycles, until a new or reworked two-piece reveal is installed in accordance with Part 2 of the Accomplishment Instructions of Boeing Special Attention Service Bulletin 747-53-2460, Revision 1, dated February 13, 2007; or Part 3 of the Accomplishment Instructions of Boeing Special Attention Service Bulletin 747-53-2460, Revision 2, dated December 22, 2010. If any cracking is found during any inspection required by this

paragraph, before further flight, do the actions specified in paragraph (k)(2)(ii)(B) or (k)(2)(ii)(C) of this AD. No further action is required by this paragraph for that location only after the replacement with a two-piece reveal. As of the effective date of this AD, only Boeing Special Attention Service Bulletin 747-53-2460, Revision 2, dated December 22, 2010, may be used to accomplish the actions required by this paragraph.

**(l) Retained Requirement Regarding Operator's Equivalent Procedure**

This paragraph restates the requirements of paragraph (l) of AD 2008-18-07, Amendment 39-15664 (73 FR 56960, October 1, 2008). Although Step 5 of Figure 8 of Boeing Special Attention Service Bulletin 747-53-2460, Revision 1, dated February 13, 2007, specifies that operators may accomplish the actions in accordance with “an operator's equivalent procedure,” this AD does not allow using an “operator equivalent procedure unless approved as an alternative method of compliance in accordance with paragraph (w) of this AD.

**(m) Retained Provisions for Compliance with AD 2007-12-11, Amendment 39-15089 (72 FR 31984, June 11, 2007), for MED 3 Only**

This paragraph restates the provisions of paragraph (m) of AD 2008-18-07, Amendment 39-15664 (73 FR 56960, October 1, 2008), with revised information. Accomplishment of the applicable repair required by AD 2008-18-07, Amendment 39-15664 (73 FR 56960, October 1, 2008), constitutes compliance with the repair of the lower forward corner casting (reveal) of the number 3 MEDs only, as required by paragraph (q)(2)(ii) of AD 2007-12-11, Amendment 39-15089 (72 FR 31984, June 11, 2007), which specifies the actions must be done in accordance with Boeing Service Bulletin 747-53A2378, Revision 1, dated March 10, 1994; Boeing Service Bulletin 747-53A2378, Revision 3, dated August 11, 2005; or Boeing Service Bulletin 747-53A2378, Revision 4, dated June 10, 2010. As of the effective date of this AD, only Boeing Service Bulletin 747-53A2378, Revision 4, dated June 10, 2010, may be used to

accomplish the actions specified in this paragraph. Accomplishment of the actions of this AD does not terminate the remaining requirements of AD 2007-12-11.

**(n) Retained Parts Installation Prohibition (Cast 356 Aluminum) Reveals**

This paragraph restates the requirement of paragraph (n) of AD 2008-18-07, Amendment 39-15664 (73 FR 56960, October 1, 2008). As of November 5, 2008 (the effective date of AD 2008-18-07), no person may install a door lower forward corner reveal made of cast 356 aluminum on any airplane at a location specified by AD 2008-18-07.

**(o) Retained Parts Installation Limitation (Machined 6061 Aluminum) Reveals**

This paragraph restates the limitation specified by paragraph (o) of AD 2008-18-07, Amendment 39-15664 (73 FR 56960, October 1, 2008), with revised service information. As of November 5, 2008 (the effective date of AD 2008-18-17), no person may install a door lower forward corner reveal made of machined 6061 aluminum on any airplane at a location specified by this AD, unless it has been confirmed/reworked to be without a sharp edge, in accordance with Part 5 of the Accomplishment Instructions of Boeing Special Attention Service Bulletin 747-53-2460, Revision 1, dated February 13, 2007; or Part 1 of the Accomplishment Instructions of Boeing Special Attention Service Bulletin 747-53-2460, Revision 2, dated December 22, 2010. As of the effective date of this AD, only Boeing Special Attention Service Bulletin 747-53-2460, Revision 2, dated December 22, 2010, may be used to accomplish the actions required by this paragraph.

**(p) Retained Optional Rework of One-Piece and Two-Piece Machined 6061 Aluminum Reveals**

This paragraph restates the information provided in “Note 1” of AD 2008-18-07, Amendment 39-15664 (73 FR 56960, October 1, 2008), with revised information. For the purpose of this AD, a one-piece machined 6061 aluminum reveal may be reworked into a two-piece reveal in accordance with the Accomplishment Instructions of the applicable

service bulletin identified in paragraph of (p)(1) or (p)(2) of this AD, after it was verified to be crack free and without a sharp edge, or after it was confirmed to be crack free and reworked to remove a sharp edge. As of the effective date of this AD, only Boeing Special Attention Service Bulletin 747-53-2460, Revision 2, dated December 22, 2010, may be used to accomplish the actions provided by this paragraph.

(1) Boeing Special Attention Service Bulletin 747-53-2460, Revision 1, dated February 13, 2007.

(2) Boeing Special Attention Service Bulletin 747-53-2460, Revision 2, dated December 22, 2010.

**(q) Retained Optional Rework of One-Piece 6061 Aluminum Reveals with a Sharp Edge**

This paragraph restates the information provided in “Note 2” of AD 2008-18-07, Amendment 39-15664 (73 FR 56960, October 1, 2008), with revised service information. For the purpose of this AD, a one-piece machined 6061 aluminum reveal with a sharp edge may be reworked into a one-piece machined 6061 aluminum reveal without a sharp edge, in accordance with Part 6 of the Accomplishment Instructions of Boeing Special Attention Service Bulletin 747-53-2460, Revision 1, dated February 13, 2007; or Part 1 of the Accomplishment Instructions of Boeing Special Attention Service Bulletin 747-53-2460, Revision 2, dated December 22, 2010; after it is confirmed to be crack free in accordance with Part 5 of the Accomplishment Instructions of Boeing Special Attention Service Bulletin 747-53-2460, Revision 1, dated February 13, 2007, or Part 2 of the Accomplishment Instructions of Boeing Special Attention Service Bulletin 747-53-2460, Revision 2, dated December 22, 2010. After the sharp edge is removed, the one-piece machined 6061 aluminum reveal without a sharp edge may be further reworked into a two-piece reveal, in accordance with Part 7 of the Accomplishment Instructions of Boeing Special Attention Service Bulletin 747-53-2460, Revision 1, dated February 13, 2007; or Part 5 of the Accomplishment Instructions of Boeing Special

Attention Service Bulletin 747-53-2460, Revision 2, dated December 22, 2010. As of the effective date of this AD, only Boeing Special Attention Service Bulletin 747-53-2460, Revision 2, dated December 22, 2010, may be used to accomplish the actions specified by this paragraph.

**(r) New Actions for Previously Inspected Group 4 Airplanes: Corner Reveal not Replaced, or Replaced with Two-Piece Reveal**

For Group 4 airplanes identified in Boeing Special Attention Service Bulletin 747-53-2460, Revision 2, dated December 22, 2010, that have been inspected previously in accordance with the Accomplishment Instructions of Boeing Special Attention Service Bulletin 747-53-2460, Revision 1, dated February 13, 2007; and on which the corner reveal either has not been replaced, or has been replaced with a two-piece reveal that was made by reworking an existing one-piece reveal: Before the accumulation of 7,000 total flight cycles, or within 3,000 flight cycles after the most recent inspection or rework done in accordance with Boeing Special Attention Service Bulletin 747-53-2460, Revision 1, dated February 13, 2007; or Boeing Special Attention Service Bulletin 747-53-2460, Revision 2, dated December 22, 2010; or within 1,000 flight cycles after the effective date of this AD, whichever occurs latest; do a material type inspection to determine if the corner reveal is a casting, in accordance with Part 6 of the Accomplishment Instructions of Boeing Special Attention Service Bulletin 747-53-2460, Revision 2, dated December 22, 2010. Doing the inspection specified in this paragraph terminates the inspections required by paragraph (j) of this AD for these airplanes.

(1) If, during any inspection required by paragraph (r) of this AD, any corner reveal is found to be a casting: Before further flight, do a detailed inspection for cracking of the corner reveal, in accordance with Part 2 of the Accomplishment Instructions of Boeing Special Attention Service Bulletin 747-53-2460, Revision 2, dated December 22, 2010; and repeat the inspection thereafter at intervals not to exceed 3,000 flight cycles until a new two-piece reveal is installed in accordance with the

requirements of paragraph (r)(1)(i) of this AD. If any cracking is found, do the actions specified in paragraph (r)(1)(i) or (r)(1)(ii) of this AD.

(i) Replace the cast reveal with a new 6061 machined aluminum two-piece corner reveal, before further flight, in accordance with Part 3 of the Accomplishment Instructions of Boeing Special Attention Service Bulletin 747-53-2460, Revision 2, dated December 22, 2010.

(ii) Repair all cracking, before further flight, in accordance with Part 4 of the Accomplishment Instructions of Boeing Special Attention Service Bulletin 747-53-2460, Revision 2, dated December 22, 2010.

(2) If, during any inspection required by paragraph (r) of this AD, any one-piece corner reveal is found to be installed and is not a casting: Before the accumulation of 10,000 total flight cycles; or within 6,000 flight cycles after the most recent inspection done in accordance with Boeing Special Attention Service Bulletin 747-53-2460, Revision 1, dated February 13, 2007; or Boeing Special Attention Service Bulletin 747-53-2460, Revision 2, dated December 22, 2010; whichever occurs later; do a detailed inspection of the corner reveal for cracking, in accordance with Part 2 of the Accomplishment Instructions of Boeing Special Attention Service Bulletin 747-53-2460, Revision 2, dated December 22, 2010. Repeat the inspection for cracking thereafter at intervals not to exceed 6,000 flight cycles until the corner reveal is replaced with a 6061 machined aluminum two-piece corner reveal. If any cracking is found during any inspection required by paragraph (r)(2) of this AD, before further flight, replace the corner reveal with a 6061 machined aluminum two-piece corner reveal, in accordance with Part 3 of the Accomplishment Instructions of Boeing Special Attention Service Bulletin 747-53-2460, Revision 2, dated December 22, 2010.



**(s) New Actions for Previously Inspected Group 4 Airplanes: Corner Reveal Replaced with One-Piece Reveal**

For Group 4 airplanes identified in Boeing Special Attention Service Bulletin 747-53-2460, Revision 2, dated December 22, 2010, that have been inspected previously in accordance with Boeing Service Bulletin 747-53-2460, Revision 1, dated February 13, 2007, and on which the corner reveal has been replaced with a one-piece reveal: Within 10,000 flight cycles after the date the reveal was replaced with a one-piece corner reveal, do a detailed inspection for cracking of the corner reveal, in accordance with Part 2 of the Accomplishment Instructions of Boeing Special Attention Service Bulletin 747-53-2460, Revision 2, dated December 22, 2010. Repeat the inspection for cracking thereafter at intervals not to exceed 6,000 flight cycles until the corner reveal is replaced with a 6061 machined aluminum two-piece corner reveal, in accordance with the requirements of paragraph (u) of this AD. If any cracking is found during any inspection required this paragraph of this AD, before further flight, replace the one-piece corner reveal with a 6061 machined aluminum two-piece corner reveal, in accordance with Part 3 of the Accomplishment Instructions of Boeing Special Attention Service Bulletin 747-53-2460, Revision 2, dated December 22, 2010.

**(t) New Actions for Group 4 Airplanes: Not Previously Inspected or Changed**

For Group 4 airplanes identified in Boeing Special Attention Service Bulletin 747-53-2460, Revision 2, dated December 22, 2010, that have not been previously inspected or changed in accordance with Boeing Special Attention Service Bulletin 747-53-2460, Revision 1, dated February 13, 2007: Before the accumulation of 1,500 total flight cycles, or within 1,000 flight cycles after the effective date of this AD, whichever occurs later, do a material type inspection to determine if the lower forward corner reveal is made from 6061 machined aluminum plate or 356 aluminum casting, in accordance with Part 6 of the Accomplishment Instructions of Boeing Special Attention Service Bulletin 747-53-2460, Revision 2, dated December 22, 2010. Doing the

inspection specified in this paragraph terminates the inspections required by paragraph (j) of this AD for these airplanes.

(1) If, during any inspection required by paragraph (t) of this AD, any corner reveal is found to be a casting: Before the accumulation of 7,000 total flight cycles; or within 2,000 flight cycles after the effective date of this AD; or within 3,000 flight cycles after the most recent inspection of the MED 3 corner reveal was done in accordance with Boeing Service Bulletin 747-53A2378, Revision 4, dated June 10, 2010; whichever occurs latest; do a detailed inspection for cracking of the corner reveal, in accordance with Part 2 of the Accomplishment Instructions of Boeing Special Attention Service Bulletin 747-53-2460, Revision 2, dated December 22, 2010. Repeat the inspection for cracking thereafter at intervals not to exceed 3,000 flight cycles until the corner reveal is replaced with a 6061 machined aluminum two-piece corner reveal. If any cracking is found during any inspection required by this paragraph of this AD, before further flight, replace the casting with a 6061 machined aluminum two-piece corner reveal, in accordance with Part 3 of the Accomplishment Instructions of Boeing Special Attention Service Bulletin 747-53-2460, Revision 2, dated December 22, 2010.

(2) If, during any inspection required by paragraph (t) of this AD, a corner reveal is found that is not a casting: Before further flight, do a detailed inspection for a sharp edge, in accordance with Part 1 of the Accomplishment Instructions of Boeing Special Attention Service Bulletin 747-53-2460, Revision 2, dated December 22, 2010; and do a detailed inspection for cracking of the corner reveal, in accordance with Part 2 of the Accomplishment Instructions of Boeing Special Attention Service Bulletin 747-53-2460, Revision 2, dated December 22, 2010. Repeat the inspection for cracking thereafter at intervals not to exceed 6,000 flight cycles until the corner reveal is

replaced with a 6061 machined aluminum two-piece corner reveal in accordance with the requirements of paragraph (u) of this AD.

(i) If any sharp edge is found during any inspection required by paragraph (t)(2) of this AD, before further flight, rework the corner reveal, in accordance with Part 1 of the Accomplishment Instructions of Boeing Special Attention Service Bulletin 747-53-2460, Revision 2, dated December 22, 2010.

(ii) If any cracking is found during any inspection required by paragraph (t)(2) of this AD, before further flight, replace the corner reveal with a 6061 machined aluminum two-piece corner reveal, in accordance with Part 3 of the Accomplishment Instructions of Boeing Special Attention Service Bulletin 747-53-2460, Revision 2, dated December 22, 2010.

**(u) New Terminating Action for Repetitive Inspections**

Installation of a 6061 machined aluminum two-piece corner reveal in accordance with Part 3 of the Accomplishment Instructions of Boeing Special Attention Service Bulletin 747-53-2460, Revision 2, dated December 22, 2010, terminates the repetitive inspections required by paragraphs (r), (s), and (t) of this AD.

**(v) Credit for Previous Actions**

This paragraph provides credit for actions required by paragraphs (g) through (m) and (o) through (q) of this AD, if those actions were performed before the effective date of this AD using Boeing Special Attention Service Bulletin 747-53-2460, Revision 1, dated February 13, 2007; or Boeing Service Bulletin 747-53A2378, Revision 3, dated August 11, 2005; as applicable, which are not incorporated by reference in this AD.

**(w) Alternative Methods of Compliance (AMOCs)**

(1) The Manager, Seattle Aircraft Certification Office (ACO), FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal

inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the ACO, send it to the attention of the person identified in the Related Information section of this AD. Information may be emailed to: [9-ANM-Seattle-ACO-AMOC-REQUESTS@faa.gov](mailto:9-ANM-Seattle-ACO-AMOC-REQUESTS@faa.gov).

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(3) An AMOC that provides an acceptable level of safety may be used for any repair required by this AD if it is approved by the Boeing Commercial Airplanes Organization Designation Authorization (ODA) that has been authorized by the Manager, Seattle ACO, to make those findings. For a repair method to be approved, the repair must meet the certification basis of the airplane, and the approval must specifically refer to this AD.

(4) AMOCs previously approved in accordance with AD 2008-18-07, Amendment 39-15664 (73 FR 56960, October 1, 2008), are approved as AMOCs for the corresponding requirements of this AD for Group 2 and Group 3 airplanes identified in Boeing Special Attention Service Bulletin 747-53-2460, Revision 2, dated December 22, 2010. Previously approved AMOCs for Group 1 and Group 4 airplanes identified in Boeing Special Attention Service Bulletin 747-53-2460, Revision 2, dated December 22, 2010, are not approved for compliance with the actions required by this AD.

**(x) Related Information**

(1) For more information about this AD, contact Bill Ashforth, Aerospace Engineer, Airframe Branch, ANM-120S, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue SW., Renton, WA 98057-3356; phone: (425) 917-6432; fax: (425) 917-6590; email: [bill.ashforth@faa.gov](mailto:bill.ashforth@faa.gov).

(2) For service information identified in this AD, contact Boeing Commercial Airplanes, Attention: Data & Services Management, P. O. Box 3707, MC 2H-65, Seattle, Washington 98124-2207; telephone 206-544-5000, extension 1; fax 206-766-5680; Internet <https://www.myboeingfleet.com>. You may review copies of the referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, Washington. For information on the availability of this material at the FAA, call 425-227-1221.

Issued in Renton, Washington, on April 26, 2013.

Ali Bahrami,  
Manager,  
Transport Aircraft Directorate,  
Aircraft Certification Service.

[FR Doc. 2013-10905 Filed 05/07/2013 at 8:45 am; Publication Date: 05/08/2013]